

## **AMENDMENTS TO THE CLAIMS**

1. (Currently amended) A method of surface treatment of a titanium metal wherein comprising

       plasma carburizing is carried out in an atmosphere comprising a carburizing gas having the-a molar ratio of hydrogen atoms (H) to carbon atoms (C) adjusted to  $1 \leq H/C \leq 9$  at a pressure of 13-400 Pa and a temperature of 400-690 °C.

2. (Currently amended) A method of surface treatment of a titanium metal comprising the steps of heating the titanium metal to a temperature of 400-690 °C in a cleaning gas atmosphere containing hydrogen gas,

       subjecting the surface of the titanium metal to cleaning by applying a DC voltage of 200-1500 V, and

       plasma carburizing in an atmosphere comprising a carburizing gas having the-a molar ratio of hydrogen atoms (H) to carbon atoms (C) adjusted to  $1 \leq H/C \leq 9$  at a pressure of 13-400 Pa and a temperature of 400-690 °C.